

## REMARKS

Sir:

1)

This is responsive to the Office Action date mailed 08/09/2005 regarding US Patent Application 09/893,292. Please reexamine the Application in view of the herein amendments and remarks finding all claims allowable. Thank you.

Herewith are:

- a) An Extension of Time Petition and fee payment;
- b) A RCE and fee payment;
- c) A Declaration by the Inventor;

2)

Regarding the rejection of claims 193-194 under 35 USC 103 (a) over Wislocki (US 4933670) in view of Satoshi (JP9213168), Inoue (US 5207426), Poulsom (DE 40013277):

It is very respectfully submitted that claim 193 is patentable over the relied upon prior art in that there is insufficient motivation present within the references to cause one skilled in the art to combine the references and then construct the claimed invention.

Furthermore, in claim 193, the combination of "single first button" which actuates "a first sensor" which is proportional, and also actuates "a second

sensor” to indicate an “On state” is not suggested in the relied upon references.

Please note that the relied upon combination of Wislocki, Satoshi, Inoue and Poulsom does not in any way suggest a single button with a first proportional sensor and second On/Off sensor as claimed by Applicant. In claim 193 the single first button is a button having a single location for the finger to apply pressure, please see drawing Fig. 28 button 378 which can be used with a “compound sensor” such as 702 of Fig. 42 for examples only of single buttons and a “compound sensor”.

The single first button of claim 193 has two distinct sensors associated with it, one of the sensors being a proportional sensor, and the other sensor being a On/Off sensor wherein the user can, while leaving his finger against the button, depress and actuate both the proportional and On/Off sensor.

Applicant’s single button uses a single depressive motion applied by the human user to actuate first one sensor and the second sensor, and without altering the pressing direction such as by sideways “rocking” the pressure as commonly preformed on cross keys or rocker switches such as Inoue’s operator 12.

Inoue’s direction designating operator 12 is a rocker which includes four distinct locations each shown with a triangle in his Fig. 1 on cross shaped key top 121. Each area on 121 requires the human to move his finger tip or tip pressing pressure to, moving or rolling pressure from one location to the next to actuate a first and second sensor. Each of the four locations on Inoue’s direction designating operator 12 has only one On/Off sensor associated with that area. **There is no suggestion of actuating a proportional sensor and**

**an On/Off sensor with a single button in Inoue's disclosure or in the combination Inoue with Wislocki and Satoshi.**

Neither Wislocki or Satoshi suggest a single key including two sensors as claimed, and as shown above it is now evident that Inoue also does not suggest a single button actuating a proportional sensor and On/Off sensor **as described and claimed** in the instant Application. Thus the relied upon art in combination cannot suggest this important feature of the claim 193 (and 194).

The novel single button with a proportional sensor and On/Off sensor of claim 193 is in an otherwise novel and beneficial combination of elements, and Applicant very respectfully submits that this combination has clear structural differences in a multiple axes controller. The structural differences providing significant operational advantages over prior art controllers including ease of use, choice of inputs to actuate, accuracy of control because of proportional inputs, intuitiveness and economics of manufacture. Would the Examiner please reconsider claim 193 finding it properly allowable at least for the above reasons. Thank you.

3)

Claim 194 includes the novel combination of elements of claim 193 including the novel single button with both a proportional sensor and an On/Off sensor actuatable without the pressure directional change (rocking) from the pressing finger. Claim 194 further includes that actuation of at least one of those sensors "activates a turn-on tactile feedback", a feature which could be used to alert the user of a variety of events which could be tied to the actuation or events

caused by the actuation of the sensor. This is a very novel and beneficial combination of elements and not suggested by the prior art. This arrangement supplies clear structural differences providing operational advantages including ease of use, choice of inputs, accuracy because of the proportional inputs, intuitiveness, two-way interfacing between the user and controller, and economics of manufacture. Allowance of claim 194 is very respectfully requested and would be proper. Thank you.

4)

Addressing claims 204-205 and 221 in regards to the relied upon Wislocki, Satoshi and Poulsom:

Claim 204 as below amended is novel and allowable because of the novel and highly beneficial aspects including an image machine, a controller structured with at least twelve sensors converting human inputs into electrical outputs controlling at least three axes of three-dimensional imagery shown by a display. The controller includes active tactile feedback structure, and an input stick element structured with at least two sensors of the twelve sensors for at least two axes control of the three-dimensional imagery. The controller also includes a button positioned on the controller which is depressible by a finger, the button positioned to actuate a proportional sensor, whereby varying finger input variably depresses the button and variably controls at least a part of the imagery. This novel and highly advantageous combination of elements is in my earlier Application filed July 5, 1996 to which a priority claim is made for this

Continuation.

It is a highly novel and beneficial combination of elements allowing multiple inputs from various input structures during control of three-dimensional imagery and with precise variable proportional control from the finger button. This combination of stick input element(s), proportional button(s) and active tactile feedback in three axes control was novel and non-obvious when I invented it and disclosed it in 1996 in the Grand Parent Patent Application 08/677,378 to this Continuation.

Allowance of claim 204 as amended is very respectfully requested and would be quite proper. Thank you.

5)

Claim 205 as below amended is novel and allowable because of the novel and highly beneficial aspects according to claim 204 wherein the controller further comprises a second element structured with at least two sensors of said at least twelve sensors, whereby human input causing actuation of said second element controls at least in part two axes of the imagery. Applicant shows numerous 2 axes and 3 axes plates/pads, sticks and ball inputs which are elements or members in various combinations. The high degree of control options and accuracy, choice of inputs, along with the tactile feedback in an economically manufactured combination make this controller a substantial advancement of the prior art. It provides greater control choices, accuracy and other benefits than any of the reference controllers, and more than a

combination of the references would suggest possible. Claim 205 is a great advancement in hand controllers for imagery, clearly providing far more than the related prior art and therefore allowance of the claim is very respectfully requested and would be proper. Thank you.

6)

Claim 221 as below amended is highly novel, providing never before advantages in a single controller, therefore it is requested the claim be allowed. It provides greater control choices, accuracy and other benefits than any of the relied on reference controllers, and more than a combination of the relied on references would suggest.

This combination of elements including two pivotal buttons actuating proportional sensors (not suggested in the relied on reference controllers), in combination with active tactile feedback and a stick input member provide a high degree of control options, i.e., different types of variable inputs leading to choice, ease of use, accuracy and versatility in an economically manufactured controller. This is far more than the relied upon references in combination, and far more than they suggest possible. The controller of this claim is well supported in the earlier Grand Parent Application filed in 1996. Allowance of claim 221 is very respectfully requested and would be quite proper. Thank you.

The present patent application has multiple claims describing highly novel and beneficial combinations allowing multiple inputs from various input structures

of members or elements and the like controlling three dimensional imagery in useful, novel and unobvious ways as disclosed in my 1996 filed grand parent Patent Application 08/677,378 to this Continuation. Since then others now also use many of the combined components of the current inventions in combination, such as in US Patent 6,824,468 which is not prior art. Relevant to many of the claims of this patent application, the patent '468 shows is a stick 80, which is an element having at least two axes of control, a rocker or D pad 78 which is an element having two axes of control and a motor 30, 32 for tactile feedback. Each one of these elements may be described as a rotatable element. The inventions of this patent application as currently claimed supply clear structural differences. The structural differences providing operational advantages including ease of use, choice of inputs, greater variability because of the proportional inputs, intuitiveness, two-way interfacing between the user and controller, and economics of manufacture.

7)

Addressing claim 222 in regards to the relied upon Poulson and King (US 4555960):

Claim 222 as below amended is highly novel and provides never before advantages also, therefore it is requested the claim be allowed. This combination of elements including the at least twelve sensors, a three axes member, a rotatable member which clearly could be a two or three axes member, active tactile feedback, at least three axes of control provided to the user of the controller of 3-D imagery shown on a display, and a linkage between a shown "contact" in the 3-D imagery and feedback occurring from the tactile

feedback motor. Such is not suggestion by a proper combination of the related prior art. Therefore allowance of the claim is very respectfully requested and would be proper. Thank you.

8)

Addressing claim 223 in regards to the relied upon Poulsom, King and Asher (US 5689285):

Claim 223 is novel and allowable because of the novel and highly beneficial aspects according to claim 222 and further comprising at least some of the sensors are proportional sensors, thereby clearly reciting this beneficial control aspect leading to intuitiveness, accuracy, choice of inputs among other benefits. The combination of at least twelve sensors, a three axes member, a stick member which could be a three axes member, active tactile feedback, at least three axes of control provided to the user of the controller of three axes of 3-D imagery shown on a display, and a linkage between a shown "contact" in the 3-D imagery and feedback occurring from the tactile feedback motor, with some of the sensors being proportional is clearly not suggested by the referenced art. Such is a big advancement in controllers of imagery and is well supported in Application 08/677,378 filed in 1996. Allowance of claim 223 is very respectfully requested and would be proper. Thank you.



9)

Briefly regarding the Examiner's comments in the 08/09/2005 Office Action point "6." wherein the Examiner states "the test for combining references is what the references as a whole would have suggested to one of ordinary skill in the art", a quote from In Re Sheckler stated in the Manual of Patent Examining Procedure (MPEP) in 2143.01 for the Examiner's instruction.

This section 2143.01 of the MPEP describes in some detail how to determine "what the references as a whole would have suggested", for clearly there must be and is a process for making such an important determination.

In MPEP 2143.01 section III it is stated for the Examiner that:

*"The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination".*

Applicant here states there is nothing in the relied upon references indicating the "desirability of the combination".

This MPEP 2143.01 section III also states:

*"Although a prior art device may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so"*

Applicant respectfully states here that in the above quote please notice the phrase "*there must be a suggestion or motivation **in the reference** to do so*". Clearly such instructions to the Examiner would not be made if the mere finding of the parts in the related field provided the suggestion or motivation. Clearly obviousness requires more than finding the parts in prior art documents within the field. Clearly obviousness requires more than finding the parts in prior

art within the field and the inventor thereof stating this is a good and desirable part. Clearly the Commissioner is discussing locating a description or some clear indication of the desirability of making a **certain combination** as will be further described below.

In MPEP 2143.01 section IV it is stated for the Examiner that:

*"A statement that modifications of the prior art to meet the claimed invention would have been "well within the ordinary skill of the art at the time the claimed invention was made" because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references."*

Applicant respectfully states here that in the above quote please notice the phrase *"some objective reason to combine the teachings of the references"*

Please note a dictionary defines "objective" as

1. free of bias: free of any bias or prejudice caused by personal feelings
2. based on facts: based on facts rather than thoughts or opinions

Encarta ® World English Dictionary © & (P) 1998-2005 Microsoft Corporation. All rights reserved.

Also stated in MPEP 2143.01 section IV for the Examiner is:

*"The level of skill in the art cannot be relied upon to provide the suggestion to combine references".*

Herein above again, in yet another way it is stated that the combining of references and the motivation to combine features therein must be based on identifiable objective points within the relied references themselves, with this being some of the basic requirements listed in the Manual of Patent Examining Procedure for determining just what "the references as a whole would have suggested to one of ordinary skill in the art".

In the Office Action the Examiner repeatedly makes a case for obviousness by way of:

1. stating he found a part in Applicant's identified claim, in a reference in the art that he identifies,
2. stating what the part does, for example, vibrates as in the case of a vibrator, and then
3. stating that one skilled in the art would find it obvious to use such part, again for example, a vibrator, so as to get that benefit, in this example, vibration in his combination.

The Examiner does not identify anything to motivate one skilled in the art other than the fact that the part exists in the field and has a function. For the record and very respectfully, that is not sufficient to properly establish a case of *prima facie* obviousness per the Commissioner for Patents instructions and Patent Law. Without Applicant's disclosure, why would one skilled in the art think of the new so called obvious combination ?

Applicant very respectfully states here that the Examiner has not established a *prima facie* case of obviousness for any of the claims, but has located elements and combined the references and elements using subjective

reasoning as to why one skilled in the art would have made such a combining. This subjective reasoning is based upon the improper hindsight use of Applicant's disclosure serving as a guide to the Examiner. Such subjective reasoning as to why one skilled in the art would have made such a combination, i.e., he found the part, and the part is useful, does not meet the requirements of the MPEP in determining **what the references as a whole would have suggested to one of ordinary skill in the art.** These requirements are made by the Commissioner for Patent for at least in part making sure an Examiner does not fall victim to the hindsight trap so well described in *IN RE ANITA DEMBICZAK and BENSON ZINBARG*, United States Court of Appeals for the Federal Circuit regarding US Patent Application Serial No. 08/427,732 decided April 28, 1999 wherein it was stated:

*"Our analysis begins in the text of section 103 quoted above, with the phrase "at the time the invention was made." For it is this phrase that guards against entry into the "tempting but forbidden zone of hindsight," see *Loctite Corp. v. Ultraseal Ltd.*, 781 F.2d 861, 873, 228 USPQ 90, 98 (Fed. Cir. 1985), overruled on other grounds by *Nobelpharma AB v. Implant Innovations, Inc.*, 141 F.3d 1059, 46 USPQ2d 1097 (Fed. Cir. 1998), when analyzing the patentability of claims pursuant to that section. Measuring a claimed invention against the standard established by section 103 requires the oft-difficult but critical step of casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. See, e.g., *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 313 (Fed. Cir. 1983). Close adherence to this methodology is especially important in the case of less technologically complex inventions, where the very ease with which the invention can be understood may prompt one "to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher." *Id.**

*Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references. See, e.g., *C.R. Bard, Inc. v. M3 Sys., Inc.*, 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998) (describing "teaching or suggestion or*

*motivation [to combine]" as an "essential evidentiary component of an obviousness holding"); In re Rouffet, 149 F.3d 1350, 1359, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998) ("the Board must identify specifically . . . the reasons one of ordinary skill in the art would have been motivated to select the references and combine them"); In re Fritch, 972 F.2d 1260, 1265, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992) (examiner can satisfy burden of obviousness in light of combination "only by showing some objective teaching [leading to the combination]"); In re Fine, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988) (evidence of teaching or suggestion "essential" to avoid hindsight); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 297, 227 USPQ 657, 667 (Fed. Cir. 1985) (district court's conclusion of obviousness was error when it "did not elucidate any factual teachings, suggestions or incentives from this prior art that showed the propriety of combination"). See also Graham, 383 U.S. at 18, 148 USPQ at 467 ("strict observance" of factual predicates to obviousness conclusion required). Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability--the essence of hindsight. See, e.g., Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1138, 227 USPQ 543, 547 (Fed. Cir. 1985) ("The invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time."). In this case, the Board fell into the hindsight trap."*

This DEMBICZAK decision is now heavily relied upon by the Patent Office Board of Appeals and Interferences because it so well describes the combining of references without the use of "objective" evidence. On May 19, 2005 Applicant sent to the Examiner five decisions from the Board of Patent Appeals and Interferences (BPAI) wherein this very important Dembiczak case was at least in part used to overturn improper obviousness rejections by US Patent Examiners. They were incorporated by reference into the Response and important. Did the Examiner receive these BPAI decisions and read them?

In the case of In RE MARY E. ZURKO decided Aug, 2, 2001, the United States Court of Appeals for the Federal Circuit discussed in the May 19, 2005

response from Applicant, the Court used the term “concrete evidence” to describe that which must be present to properly combine references and to establish obviousness under the law.

So while the Examiner states “the test for combining references is what the references as a whole would have suggested to one of ordinary skill in the art”, it can be seen and appreciated from the above that clearly there is a process for making such an important determination as to what the references as a whole actually would have suggested.

Does the Examiner agree there is a specified process for determining what the references as a whole would have suggested to one of ordinary skill in the art ?

If Applicant is wrong about this, Applicant would be very interested in knowing just what process the Examiner does use in determining what the prior art as a whole suggests, and this is said very respectfully as no disrespect whatsoever is intended.

10)

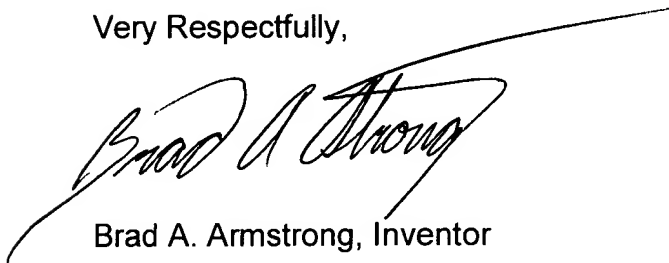
Claims 224 – 230 are herein cancelled because while Applicant firmly believes they are clearly novel and patentable, the inventions are generally covered elsewhere by Applicant.

11)

Careful consideration and allowance, in view of the above remarks, of the below claims is respectfully requested.

Please telephone 903 566 3036 if the Examiner has any comments or questions. Thank you for your careful consideration of this very important matter.

Very Respectfully,

A handwritten signature in black ink, appearing to read "Brad A. Armstrong", with a long, sweeping horizontal line extending from the end of the signature.

Brad A. Armstrong, Inventor

Date:

Feb. 8 2006